



July 21, 2017

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

Re: In the Matter of Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, GN Docket No. 12-268; Amendment of Parts 15, 73 and 74 of the Commission's Rules to Provide for the Preservation of One Vacant Channel in the UHF Television Band for Use by White Space Devices and Wireless Microphones, MB Docket No. 15-146; Notice of *Ex Parte* Communication

Dear Ms. Dortch:

On July 19, 2017, Bruce Franca, Alison Neplokh and the undersigned, all of the National Association of Broadcasters (NAB), met with Alison Nemeth of Chairman Pai's office to discuss the attached presentation regarding the Commission's proposal to reserve a vacant channel in the TV band for unlicensed use.

NAB emphasized that it does not object to unlicensed operations in the TV band as long as those operations do not cause harmful interference to licensed television services, deprive viewers of television service they receive today or stifle innovation in the broadcast band. When the Commission initially approved unlicensed operation in the television bands, this was the model it approved: unlicensed, opportunistic use of unoccupied spectrum that would not cause harmful interference to licensed services and, like all unlicensed services, would accept any harmful interference received. The Commission expressly stated that "the amount of spectrum available at a given location could change over time as additional television channels are allocated, as low power auxiliary devices make use the channels, and the other services that use these bands similarly initiate new or modify existing operations."<sup>1</sup>

Now Microsoft is engaged in a regulatory bait and switch, asserting that the promises it made about the potential for white spaces can only be realized if the FCC gives Microsoft something new: a guarantee of at least three vacant channels for white spaces operation

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<sup>1</sup> *Unlicensed Operation in the TV Broadcast Bands*, Second Report and Order and Memorandum Opinion and Order, 23 FCC Rcd 16807, ¶ 48 (2008).

nationwide. Instead of opportunistic use of spectrum that might vary in availability over time, Microsoft is seeking guaranteed access to 18 MHz of spectrum nationwide.

Microsoft's proposal will cause direct and immediate harm to translators and low power television stations displaced by the broadcast television spectrum incentive auction. These stations will need to find new channels in a smaller, more congested television band. Microsoft proposes to remove one available channel that could otherwise be used to keep such stations on the air. Microsoft attempts to dispute this harm by asserting that there will be plenty of spectrum for everyone – but that argument only demonstrates that the proposal is unnecessary. If there is plenty of spectrum for everyone, there is no need to reserve it for Microsoft. Literally the *only reason* to reserve spectrum for unlicensed use is precisely because Microsoft is concerned there will not be enough vacant spectrum following the television repack.

If Microsoft so urgently needs guaranteed access to low-band spectrum for its business plans, it should have participated in the incentive auction and won the right to licensed spectrum that would provide the certainty Microsoft claims it needs. Indeed, if Microsoft is truly interested in using low-band spectrum to provide rural broadband, it could have acquired access to 10 MHz of spectrum outside the top-50 Partial Economic Areas for perhaps \$500 million, less than one-tenth of one percent of Microsoft's market capitalization.

Instead, Microsoft is asking the Commission to grant it spectrum for free, with no buildout requirements or service requirements of any kind – substantially better terms than winning auction bidders received. And Microsoft is asking the Commission to make this grant, at the direct expense of viewers who rely on displaced television services, to bolster white spaces technology that by any measure has been a complete failure to date. We urge the Commission to reject this request.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Patrick McFadden", with a stylized flourish at the end.

Patrick McFadden  
Associate General Counsel,  
National Association of Broadcasters

cc: Alison Nemeth

# **No Vacancy:**

## **Wrong Time and Wrong Place for New Unlicensed Allocations**

July 2017

- Broadcast band already shrinking by 14 channels
- Industry undergoing dynamic change
  - Repacking will be complex and disruptive
  - Large LPTV and translator service losses
  - Next Gen TV to dramatically enhance service

# Wrong Place

Bands available for broadcast TV:

- VHF
- UHF

Bands available for unlicensed service:

- VHF
- UHF
- 900 MHz
- 2.4 GHz
- 3.5 GHz
- 5 GHz
- 57-71 GHz

*With thousands of MHz available for unlicensed in other bands, why is an additional 6 MHz necessary in the TV bands?*

A Microsoft Corp. study, for example, suggests that the use of white spaces could boost economic activity by several billion dollars a year.

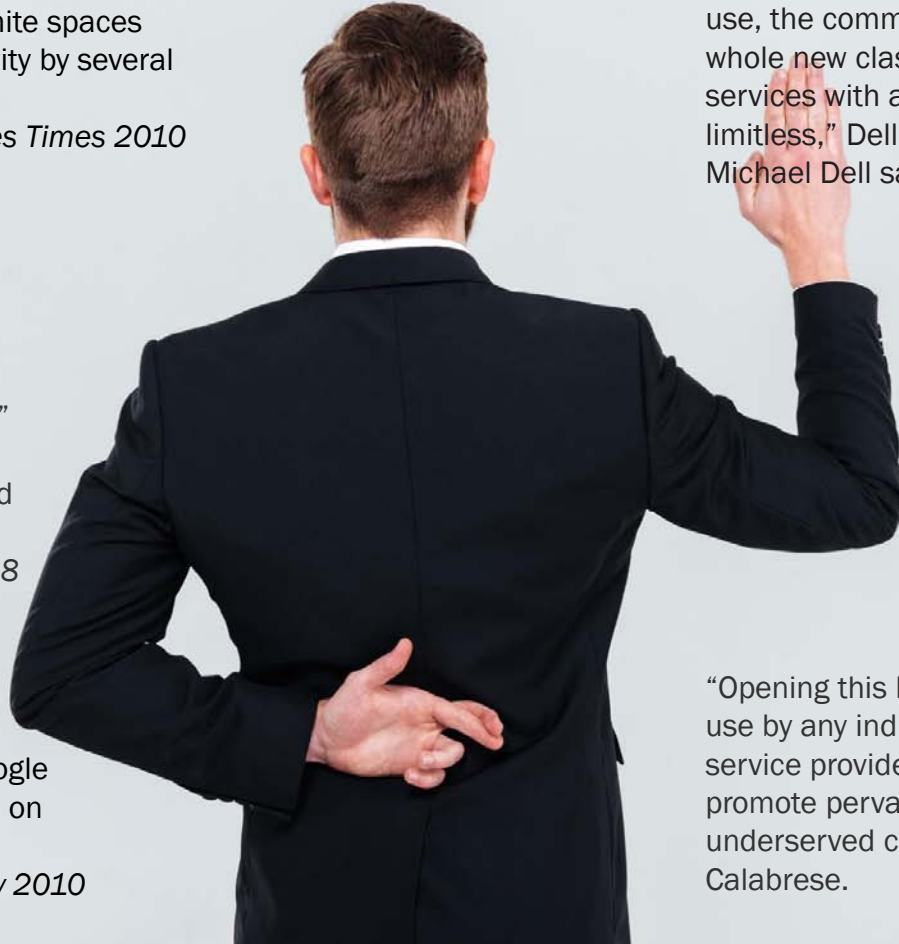
- *Los Angeles Times* 2010

"The F.C.C. has taken a significant step to usher in a new era of technology allowing for major investments in innovative wireless broadband," Greg Brown, president and co-chief executive of Motorola, said in a statement.

- *The New York Times* 2008

White space is, according to Google co-founder Larry Page, like Wi-Fi on steroids.

- *Fast Company* 2010



"By opening this broadcast spectrum for Internet use, the commission is helping to unleash a whole new class of mobile wireless broadband services with applications that are nearly limitless," Dell Chairman and Chief Executive Michael Dell said.

- *The Seattle Times* 2010

Google on Monday said it has a plan to have American consumers from Manhattan to rural North Dakota surfing the Web on handheld gadgets at gigabits-per-second speeds by the 2009 holiday season.

- *cnet* 2008

"Opening this beachfront spectrum for unlicensed use by any individual, entrepreneur or Internet service provider will unleash innovation and promote pervasive connectivity, particularly in underserved communities," said Michael Calabrese.

- *Inc.* 2010

# Case Study: South Boston, VA

- Largest deployment to date (roughly 130 HHs)
- In 2009, Microsoft launched a white spaces network in Claudville, VA – about two hours away
  - Eight years later, no devices registered in Claudville
- Maybe South Boston will be different; but this deployment occurred under the existing rules, with no additional special favors

## THE MICROSOFT UPDATE

By Julie Bort, Network World | OCT 21, 2009 5:23 PM PT

### Microsoft, Dell, Spectrum Bridge launch first public white spaces network

First ever public white spaces broadband network is alive in Virginia – like WiFi on steroids.

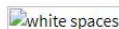


THE **GAME** HAS **CHANGED**  
Does *your* network give you full control?

» MEET THE 8400  
CORE SWITCH

**aruba**  
a Hewlett Packard  
Enterprise company

The first public [white spaces](#) network officially launched on Wednesday in Claudville, Virginia. It uses sensing technology from Spectrum Bridge with software and Web cams supplied by [Microsoft](#) and PCs supplied by Dell. The project was funded by the TDF Foundation.



White spaces are services that run in the unused portion of television spectrum, and have been called "[WiFi on steroids](#)" by [Google](#) founder Larry Page. The battle for white spaces has been going on for years. IT companies like Microsoft, Dell and Google lobbied in favor of opening up the spectrum for

#### RELATED

First public white spaces broadband network is alive in Virginia

Will Google bid to become a White Spaces provider?

The FCC seeks bids for white spaces service providers: where's Google?

# New White Spaces

- Microsoft now claims that with just one more 6 MHz channel, it can solve the rural broadband challenge
- Then why did Microsoft choose not to bid in the auction?
  - Market cap over \$500 billion
  - Could have acquired 5x5 MHz block in all markets outside the top 50 PEAs for roughly \$500 million



- India recently refused to allocate over 100 MHz of spectrum for white space deployment
- Is Microsoft seeking a U.S. commitment in part to bolster its efforts in other countries?

## As Google and Facebook Race to Bring Indians Online, Microsoft's Efforts Hit a Roadblock

Manish Singh, 07 July 2017

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### HIGHLIGHTS

- Microsoft has been working on White Space initiative for years
- But it isn't getting the spectrum band for commercial deployment
- Rivals Google and Facebook have made great progress with their efforts

As global giants push to make affordable Internet available to more Indians in an attempt to get the country's population online for the first time, one major company's ambitions may have hit a roadblock.

Microsoft's White Space initiative in India, on which the company has been working for more than three years, has reportedly failed to win the spectrum band for commercial deployment from the government.

Over the past two years, **Microsoft** has been testing the White Space technology, for which it uses the unused TV spectrum to beam Internet-carrying signals to several villages across India. Earlier this year, the company piloted the project in Harisal, a small village in Maharashtra, crippled with several infrastructural issues such as power cuts that stretch over 10 hours a day.

Months later, Microsoft quietly stopped the project in Harisal after its temporary license to run pilots expired and the government refused to renew the spectrum band for commercial deployment, **according to Hindu**, which visited the village. Microsoft declined to comment on Gadgets 360's queries.

The development puts Microsoft's major ambitions in India on hold. The company had **pledged to bring**

# The Bottom Line

- In adopting the first white spaces rules in 2008, the Commission stated:  
**“Here, future broadcast uses of the television band will have the right to interference protection from TV band devices. Not only must future primary use of the band by broadcasters be protected, but secondary uses such as low power auxiliary devices and broadcast auxiliary service (BAS) must also be protected.”**
- This is the wrong time to change that policy
- The UHF band is the wrong place to make new allocations for unlicensed use